

REMARKS

Claims 1–29 are pending. Claims 9–11, 21, and 24 have been withdrawn based on an election of species requirement. Applicant traversed this election requirement, but did *not* do so based on grounds that the inventions are not independent or distinct, as asserted by the Office Action of September 6, 2005. Applicant traversed the election requirement on the grounds that the examination of the identified species would not constitute a serious burden.

Claims 13, 14, and 25–27 Are Not Indefinite

Claims 13, 14, and 25–27 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being indefinite. The Office Action asserts that the phrase “the ratio of thickness of at least one layer of the backing to an equivalent diameter of the fibers is no more than about 20.0” in claim 13 is not understood, because the term “equivalent diameter” is assertedly uncertain and indefinite. Applicant respectfully identifies that the term “equivalent diameter” is defined in paragraph 18 of the application and is known to one of ordinary skill in the art.

The Office Action asserts that claims 14 and 25 are indefinite for the reason listed above for claim 13. Applicant respectfully identifies that the term “equivalent diameter” is defined in paragraph 18 of the application and is known to one of ordinary skill in the art.

The Office Action asserts that the phrase “a ratio of thickness of the backing portion to thickness of the metallic facing element is selected to be effective against a predetermined penetration threat” renders claim 25 indefinite as to what ratios may or may not be inclusive with such terminology. Applicant respectfully identifies that paragraphs 46 and 47 of the application set forth illustrative examples of backing portion thicknesses and facing element/backing ratios. Based on those examples and the guidelines set forth, effective ratios using the claimed backing portion can be determined without undue experimentation. Paragraph 24 identifies exemplary multiple penetration threats and explains that some penetration threats are more readily defeated by facing and some by the backing.

Claims 26 and 27 are rejected, but the reasons are not particularly identified. It is

presumed that they are rejected for the same reason as is independent claim 25, from which they depend. Applicant notes that claims 26 and 27 specifically identify the applicable ratios. Thus, it is certain which ratios are inclusive in the terminology of these claims.

Therefore, Applicant respectfully requests that the rejection of claims 13, 14, and 25–27 under 35 U.S.C. § 112, second paragraph, for indefiniteness be withdrawn.

Meyer '177 Does Not Disclose Reduced Density as Claimed in the Independent Claims

The Office Action rejects claims 1–3, 12–15, 20, 22, 23, and 25 under 35 U.S.C. § 102(b) as assertedly anticipated by U.S. Pat. No. 2,733,177 to Meyer.

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). See also MPEP § 2131. “Where there are differences between the referenced disclosure and the claim, a rejection under § 102 is improper.” *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 780 (Fed. Cir. 1985).

Independent claims 1 and 22 require that the metallic facing element is formed to have an effective density reduced by at least about 20%. In each of Figures 1 through 12, an elastic sheet 12 has some of its material displaced to provide “springs” to spread out the force of impact from a projectile, but not reducing effective density. See, e.g., Col. 2, lines 40–48. The passage in Meyer '177 identified by the Office Action as disclosing reducing density by 20%—col. 5, lines 68–72—does not even hint at density. That passage discusses the material of construction of the springs in the device described in Meyer '177 and does not address density.

There is no indication in the figures or the description of Meyer '177 that a metallic facing element is present with an effective density reduced by at least about 20%. Because Meyer '177 does not have each and every element of claims 1 and 22 of the present application, arranged as in the claim, a rejection of claims 1 and 22 as anticipated by Meyer '177 is improper. Applicants respectfully request withdrawal of this rejection of claims 1 and 22.

One advantage of an element with reduced density as claimed in the present invention is

reduced weight compared to an element of the same material and dimension without the reduced density. For example, Figures 1 and 3 of the present application illustrate perforations to reduce the density. There are holes in the metallic facing element and less material is present than if the holes were not present. As seen in Figures of Meyer '177, there is no weight reduction because the same amount of material is present, just displaced to become a "spring."

Independent claim 25 also stands rejected under 35 U.S.C. § 102(b) as assertedly anticipated by Meyer '177. Claim 25 requires a backing portion having "at least one layer wherein the ratio of thickness of the layer to an equivalent diameter of the filaments is no more than about 20.0" and "wherein a ratio of thickness of the backing portion to thickness of the metallic facing element is selected to be effective against a predetermined penetration threat." Meyer '177 does not disclose or discuss either of these ratios and does present information from which these ratios could be calculated. The Office Action does not identify that Meyer '177 discloses these ratios or where in Meyer '177 these ratios are discussed.

Thus, Meyer '177 does not have each and every element of claim 25 and Applicants respectfully request withdrawal of the rejection of claim 25.

Auyer et al. '593 Does Not Disclose a Backing as Claimed in the Independent Claims

Claims 1-3, 12-15, 22, 23, and 25 stand rejected under 35 U.S.C. § 102(b) as assertedly anticipated by U.S. Pat. No. 5,014,593 to Auyer et al.

Independent claim 1 requires "a backing having at least one layer comprising a fiber composite substrate." Independent claims 22 and 25 require "a backing layer comprising a fiber composite substrate."

The Office Action asserts that Auyer et al. '593 includes a fiber composite substrate backing identified as element 38. On the contrary, Auyer et al. '593 identifies element 38 as an integument which encloses and encases outer and inner perforated steel plates, as well as the first and second fillers. Col. 4, lines 11-20. This is identified by Auyer et al. '593 as separate from the backing plate 28. Col. 4, lines 19-20. The function of the integument is different from the function of a backing. Col. 3, lines 45-46; Col. 4, lines 11-20. The integument is not a backing; it is a cover. A protective cover is discussed in the present application at paragraphs 19 and 20.

Claim 21 of the present application claims a cover. This claim was withdrawn from the application because of the restriction requirement.

Auyer et al. '593 includes a backing plate 28 that is made of aluminum. Col. 3, lines 46–49, 54. This backing plate is for “stopping any particles that might pass through both steel plates 14 and 18.” Col. 3, lines 45–46. Auyer et al. '593 does not identify or hint at any other material of construction for the backing other than aluminum. Auyer et al. '593 does not have a backing “comprising a fiber composite substrate” as claimed in the present application.

Moreover, the ratios recited in independent claim 25 and discussed above are not present in Auyer et al. '593, and the Office Action does not identify that Auyer et al. '593 discloses these ratios.

Because Auyer et al. '593 does not have each and every element of claims 1, 22, and 25 of the present application, arranged as in the claims, a rejection of these claims as anticipated by Auyer et al. '593 is improper. Applicants respectfully request withdrawal of this rejection.

Dependent and Withdrawn Claims

Dependent claims depending from independent claims 1, 22, or 25 are believed allowable as dependent on an allowable independent claim as well as being allowable in their own right. Also, because generic claims 1, 18, and 22 are believed allowable, withdrawn claims 9–11 and 21—which depend from claim 1—and 24 are believed allowable, as well.

For example, the cited references do not disclose fiber composite substrates having a ratio of thickness of a backing layer to fiber equivalent diameter of less than about 20.0, or between about 3.5 and about 10.0, as claimed in dependent claims. The cited references also do not disclose that the perforation diameter can be greater than the diameter of the projectile to be defeated or any particular ratio between perforation diameter and projectile diameter, as claimed in the dependent claims of the present application.

Claims 28 and 29 are added to alternately claim the invention and read on elected species A.

It is believed that there is no fee associated with the filing and consideration of this

Appl. No. 10/801,795
Response Dated February 2, 2006
Reply to Office action of September 6, 2005

response other than that accompanying this response. Should the Commissioner decide that an additional fee is due, the Commissioner is hereby authorized to charge any and all fees incurred as a result of entering this response to deposit account number 03-0172.

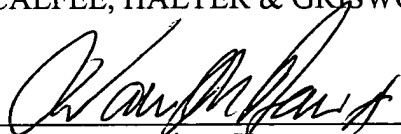
Conclusion

Claims 1–29 are pending. Claims 9–11, 21, and 24 are withdrawn without prejudice because of an election of species requirement. In view of the above remarks and amendments, it is submitted that claims 1–8, 12–20, 23, 23, and 25–29 are all in condition for allowance. It is also respectfully requested that withdrawn claims 9–11, 21, and 24 be allowed, because the generic claims 1 and 22 from which they depend are considered allowable, or they include all of the limitations of an allowable generic claim. Prompt notice of allowance of all pending claims is respectfully requested.

Respectfully submitted,

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Date: 2/2/06



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